

Pierwszak

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **43**
- SRM ---

Batch size

- Expected quantity of finished beer **7 liter(s)**
- Trub loss **5 %**
- Size with trub loss **7.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **8.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **4.4 liter(s)**
- Total mash volume **5.8 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **4.4 liter(s)** of strike water to **68.9C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **6 liter(s)** of **76C** water or to achieve **8.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------|-----------------|-------|-----|
| Grain | Weyermann Extra Pale Pilsner | 1.35 kg (93.1%) | --- % | --- |
| Grain | Cara Gold Crisp | 0.1 kg (6.9%) | --- % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|------------|-----------------------|--------|--------|------------|
| First Wort | Challenger | 13 g | 60 min | 7.7 % |
| First Wort | Saaz (Czech Republic) | 11 g | 10 min | 3.9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 3.78 g | --- |